

3. (Amended) The apparatus of claim [3] 2, wherein the target is separated from the substrate support by a [long throw] distance of at least about 50 mm.

4. (Amended) The apparatus of claim [4] 3, wherein the magnet array is a circular ring.

5. (Amended) The apparatus of claim [5] 4, wherein the target comprises a nickel/iron alloy.

6. (Amended) An apparatus for depositing a magnetic film, comprising:
a sputtering chamber containing a target and a substrate supporting surface separated by a [long throw] distance of at least about 50 mm; and
a magnet array disposed within the chamber to form a parallel magnetic field at [a surface of the substrate] the substrate supporting surface.

7. (Amended) The apparatus of claim 6, further comprising a grounded collimator disposed within the sputtering chamber between the target and the substrate supporting surface.

8. The apparatus of claim 7, wherein the magnet array is a circular ring.

9. (Amended) A method for depositing a magnetic film within a sputtering chamber containing a target and a substrate, comprising:
sputtering the target at a chamber pressure of less than about 15 mTorr; and
maintaining a surface of the substrate at a [long throw] distance of at least about 50 mm from the target and within a magnetic field disposed [during sputtering of the target, the magnetic field being] substantially parallel at the surface of the substrate.

10. The method of claim 9, further comprising collimating sputtering of the target with a grounded collimator disposed between the target and the substrate.

11. The method of claim 10, wherein the target comprises a Ni/Fe alloy.

12. The method of claim 11, wherein the target is sputtered by a plasma generated in a magnetic field maintained adjacent the target by a magnetron disposed outside the sputtering chamber.